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MORBIDITY AND MORTALITY WEEKLY REPORT

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Epidemiologic Notes and Reports

Aseptic Meningitis — New York State and United States, Weeks 1–36, 1991

During April–October 1991, several state health departments noted increased reports of aseptic meningitis.* This report summarizes findings from epidemiologic investigations of and surveillance efforts for aseptic meningitis in New York state and elsewhere in the United States.

New York

In New York, information on cases is collected by local health units and forwarded to the New York State Department of Health (NYSDOH), using the Council of State and Territorial Epidemiologists' (CSTE) case definition for surveillance (*1*). From January through August 1991, 636 cases of aseptic meningitis were reported to the NYSDOH (excluding New York City), a 153% increase over the average number of cases reported during the same 8-month period for 1987–1990 (Figure 1).

From January through August 1991, the statewide incidence rate was 8.9 cases per 100,000 population, compared with 3.9 cases per 100,000 for the same period in 1990. The increase in reporting occurred statewide.

Preliminary data from 11 state laboratories, which perform viral isolation, showed increased isolations of coxsackieviruses, echovirus 30, and enteroviruses not yet typed. During June–July 1991, the Nassau County Medical Center detected echovirus 30 in 12 (67%) of 18 patient specimens from which nonpolio enteroviruses were isolated; during 1990, echovirus 30 was isolated from one (2%) of 57 patient specimens.

United States

From the reporting period ending August 24, 1991, through the period ending October 12, 1991, reports of aseptic meningitis nationally have exceeded historical limits for each 4-week reporting period. Cases of aseptic meningitis are not reportable

*The CDC case definition for aseptic meningitis is a syndrome characterized by acute onset of meningeal symptoms, fever, and cerebrospinal fluid pleocytosis, with bacteriologically sterile cultures (*1*).

Aseptic Meningitis — Continued

in five states (Connecticut, Idaho, New Jersey, Oregon, and Washington); however, among states with reporting requirements, 8415 cases were reported during the first 36 weeks of 1991, compared with an average of 2992 cases reported during weeks 1–36 of 1986–1990. The highest rates were reported from Vermont and Rhode Island (34.3 and 29.1 cases per 100,000 persons, respectively) (Figure 2). In Vermont,

FIGURE 1. Aseptic meningitis cases, by month of onset — New York state (excluding New York City), 1987–1990 and January–August 1991

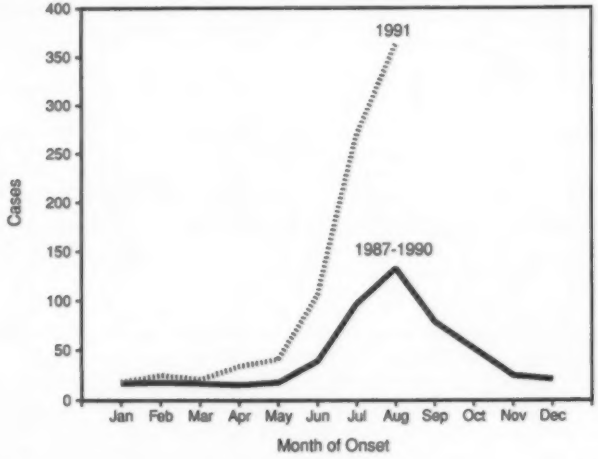
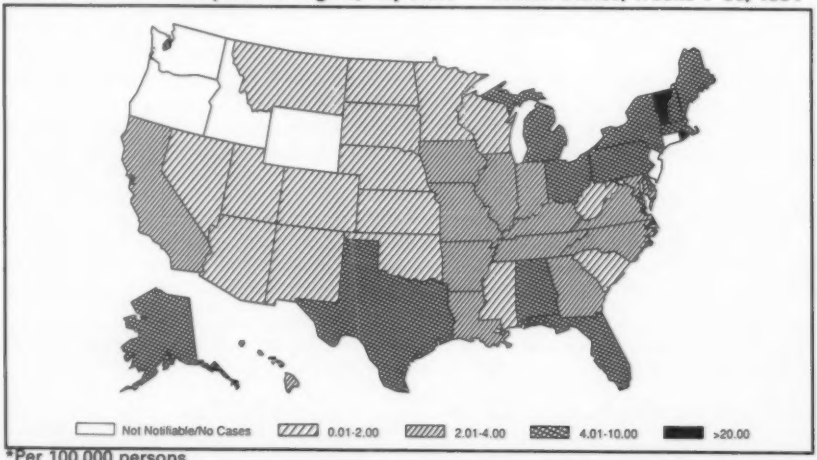


FIGURE 2. Rate of aseptic meningitis,* by state — United States, weeks 1–36, 1991†



*Per 100,000 persons.

†No states reported a rate of 10.01–20.00.

Aseptic Meningitis — Continued

reported cases increased 10-fold over baseline from April through July. States reporting elevated rates of aseptic meningitis were concentrated in the eastern United States, particularly in New England and among the mid-Atlantic states.

Outbreaks were reported in Massachusetts, Ohio, and other states. For example, in Massachusetts, echovirus 30 was isolated from specimens from seven patients involved in a communitywide outbreak. In Ohio, a middle school football coach, a student manager, and three members of the team developed aseptic meningitis during an 8-day period in September; in this outbreak, an enterovirus (not yet identified) was isolated from two patients. The local health department initiated an educational campaign that promoted handwashing and discouraged the shared use of drinking vessels and open ice buckets.

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Editorial Note: Most cases of aseptic meningitis are caused by nonpolio enteroviruses (NPEV), a group of 63 common agents. For an individual case of aseptic meningitis, identification of the causative agent requires laboratory isolation and serotyping, which may take 6–8 weeks. Laboratory reports of NPEV isolations during 1991 suggest that the regional increase in aseptic meningitis may have been associated with circulation of echovirus 30; this agent also was the most frequently isolated enterovirus during 1990. Of the 720 isolates reported to CDC through October 15, 145 (20.1%) were echovirus 30—the most frequently identified NPEV through October 15. Of these 145 echovirus 30 isolates, 90 (62.0%) have been reported from New England, middle Atlantic, and south Atlantic states.

In the United States, aseptic meningitis is a nationally notifiable disease and is reportable through state health departments on a weekly basis. In response to reports of local outbreaks and statewide increases in aseptic meningitis, local and state health departments may initiate epidemiologic investigations, assure that appropriate laboratory specimens are obtained, and provide information to the public and clinicians about transmission of viral agents and the hygienic measures that reduce their spread.

Virology laboratories are encouraged to report identified enteroviruses through state virology laboratories to CDC.

Reference

1. CDC. Case definitions for public health surveillance. MMWR 1990;39(no. RR-13):6.

Health Objectives for the Nation

Alcohol and Other Drug Use Among High School Students — United States, 1990

Use of alcohol and other drugs is associated with the leading causes of death and injury (e.g., motor-vehicle crashes, homicides, and suicides) among teenagers and young adults; for example, nearly half of all deaths from motor-vehicle crashes in this age group involve alcohol use (*1,2*). This article presents self-reported data about the prevalence of alcohol, marijuana, and cocaine use among U.S. students in grades 9–12 during 1990.

The 1990 national school-based Youth Risk Behavior Survey (YRBS) is a component of the Youth Risk Behavior Surveillance System, which periodically measures the prevalence of priority health-risk behaviors among youth through comparable national, state, and local surveys (*3*). A three-stage sample design was used to obtain a representative sample of 11,631 students in grades 9–12 in the 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands. Students were asked whether they had used alcohol, marijuana, and any form of cocaine during their lifetime and during the 30 days preceding the survey. Students also were asked whether they had had five or more drinks of alcohol on one occasion during the 30 days preceding the survey and how old they were when they first consumed alcohol or used marijuana or cocaine.

Of all students in grades 9–12, 88.1% had consumed alcohol in their lifetime, and 58.6% had consumed alcohol at least once during the 30 days preceding the survey (Table 1). Male students (62.2%) were significantly more likely than female students (55.0%) to have consumed alcohol during the 30 days preceding the survey. Students in grade 12 were significantly more likely to have had a drink of alcohol in their lifetime (92.4%) and to have had a drink of alcohol during the 30 days preceding the survey (65.6%) than were students in grade 9 (82.6% and 50.1%, respectively).

More than one third (36.9%) of all students had consumed five or more drinks of alcohol on at least one occasion during the 30 days preceding the survey (which was the survey definition for episodic heavy drinking) (Table 1). Male students (43.5%) were significantly more likely than female students (30.4%) to report heavy drinking on one or more recent occasions. The proportion of students who drank heavily on at least one occasion increased significantly by grade of students from 9th (27.7%) and 10th (35.7%) to 12th grade (44.0%).

Almost one third (31.4%) of all students had used marijuana at least once, and 13.9% had used marijuana during the 30 days preceding the survey (Table 1). Male students were significantly more likely to have used marijuana in their lifetime (35.9%) and to have used marijuana during the 30 days preceding the survey (16.9%) than were female students (27.0% and 11.1%, respectively). Students in grade 12 were significantly more likely to have used marijuana in their lifetime (42.2%) and to have used marijuana during the 30 days preceding the survey (18.5%) than were students in grade 9 (20.6% and 9.5%, respectively).

Of all students in grades 9–12, 6.6% had used cocaine at least once, and 2.1% had used cocaine during the 30 days preceding the survey (Table 1). Male students were significantly more likely to have used cocaine in their lifetime (8.1%) and to have used

TABLE 1. Percentage of high school students who used alcohol, m
States, Youth Risk Behavior Survey, 1990[†]

	Alcohol						
	Lifetime		Currently Use		Heavy drinking[§]		Life
Category	%	(95% CI[¶])	%	(95% CI)	%	(95% CI)	%
Gender							
Male	89.5	(±1.5)	62.2	(±2.8)	43.5	(±3.6)	35.9
Female	86.7	(±1.8)	55.0	(±2.8)	30.4	(±2.8)	27.0
Grade							
9th	82.6	(±2.2)	50.1	(±2.9)	27.7	(±4.0)	20.6
10th	87.0	(±2.1)	57.0	(±3.6)	35.7	(±4.0)	27.9
11th	90.1	(±1.8)	61.2	(±4.1)	39.6	(±5.1)	34.7
12th	92.4	(±1.5)	65.6	(±3.2)	44.0	(±3.5)	42.2
Total	**88.1**	**(±1.2)**	**58.6**	**(±2.4)**	**36.9**	**(±2.6)**	**31.4**

*During their lifetime or during the 30 days preceding the survey.
[†]Unweighted sample size = 11,631 students.
[§]Consumed five or more drinks on at least one occasion during the 30 days
[¶]Confidence interval.

Alcohol and Other Drug Use — Continued

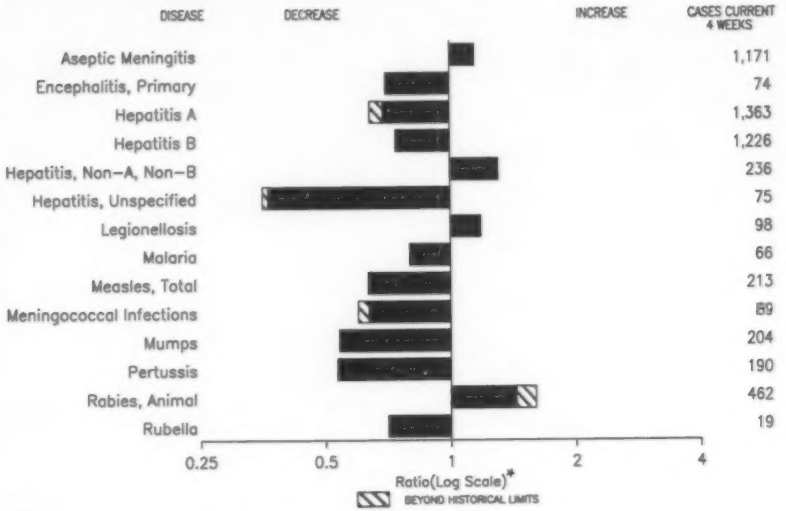
ol, marijuana, or cocaine,* by gender and grade — United

	Marijuana				Cocaine			
	Lifetime		Currently use		Lifetime		Currently use	
	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
	9	(±3.4)	16.9	(±2.4)	8.1	(±1.3)	3.3	(±1.0)
	0	(±2.9)	11.1	(±1.6)	5.2	(±1.1)	1.0	(±0.3)
	6	(±3.8)	9.5	(±2.2)	3.6	(±1.1)	1.1	(±0.4)
	9	(±3.5)	13.5	(±2.6)	5.8	(±1.5)	2.4	(±1.2)
	7	(±4.8)	13.9	(±3.4)	7.6	(±1.7)	2.5	(±0.9)
	2	(±4.0)	18.5	(±3.4)	9.3	(±1.7)	2.3	(±0.7)
	4	**(±2.7)**	**13.9**	**(±1.8)**	**6.6**	**(±0.9)**	**2.1**	**(±0.5)**

days preceding the survey.

(Continued on page 783)

FIGURE I. Notifiable disease reports, comparison of 4-week totals ending November 9, 1991, with historical data — United States



*Ratio of current 4-week total to the mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary — cases of specified notifiable diseases, United States, cumulative, week ending November 9, 1991 (45th Week)

	Cum. 1991		Cum. 1991
AIDS	38,176	Measles: imported	202
Anthrax	-	indigenous	8,850
Botulism: Foodborne	19	Plague	9
Infant	68	Poliomyelitis, Paralytic*	-
Other	3	Psittacosis	73
Brucellosis	72	Rabies, human	3
Cholera	21	Syphilis, primary & secondary	35,812
Congenital rubella syndrome	17	Syphilis, congenital, age < 1 year†	1,662
Diphtheria	2	Tetanus	42
Encephalitis, post-infectious	69	Toxic shock syndrome	247
Gonorrhea	515,663	Trichinosis	61
Haemophilus influenzae (invasive disease)	2,341	Tuberculosis	19,700
Hansen Disease	120	Tularemia	173
Leptospirosis	50	Typhoid fever	394
Lyme Disease	7,922	Typhus fever, tickborne (RMSF)	601

*Four suspected cases of poliomyelitis have been reported in 1991; none of the 8 suspected cases in 1990 have been confirmed to date. Five of the 13 suspected cases in 1989 were confirmed and all were vaccine associated.
†Includes updates for first two quarters of 1991.

TABLE II. Cases of selected notifiable diseases, United States, weeks ending November 9, 1991, and November 10, 1990 (45th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea		Hepatitis (Viral), by type				Legionellosis	Lyme Disease
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1991	Cum. 1991	Cum. 1991	Cum. 1991	Cum. 1991	Cum. 1990	Cum. 1991	Cum. 1991	Cum. 1991	Cum. 1991	Cum. 1991	Cum. 1991
UNITED STATES	38,176	12,577	804	69	515,663	585,191	20,006	14,435	2,630	1,010	1,054	7,922
NEW ENGLAND	1,590	1,416	29	1	12,501	15,984	494	724	60	28	74	1,484
Maine	51	153	3	-	147	188	19	27	4	-	4	-
N.H.	38	164	5	-	174	250	30	31	7	-	8	35
Vt.	18	227	5	-	49	46	23	15	7	1	4	7
Mass.	910	484	13	1	5,371	6,712	238	497	29	24	53	261
R.I.	78	381	1	-	1,061	1,054	89	22	11	3	5	131
Conn.	495	7	2	-	5,699	7,734	95	132	2	-	-	1,050
MID. ATLANTIC	10,248	2,413	59	11	60,337	77,070	2,071	1,456	304	19	289	4,742
Upstate N.Y.	1,292	1,202	31	7	11,479	12,835	763	506	170	10	99	3,077
N.Y. City	5,842	342	1	-	22,202	31,209	738	237	8	-	48	-
N.J.	2,057	-	-	-	10,111	12,789	231	333	83	-	30	765
Pa.	1,057	869	27	4	16,545	20,237	339	380	43	9	112	900
E.N. CENTRAL	2,830	2,431	234	7	97,884	111,844	2,597	1,665	400	61	210	293
Ohio	524	926	82	2	30,441	33,223	332	355	158	19	105	154
Ind.	279	178	21	1	10,351	9,952	343	184	1	1	17	10
Ill.	1,343	420	75	4	28,426	34,852	1,123	253	64	7	18	25
Mich.	491	792	51	-	23,047	26,090	256	535	116	34	39	104
Wis.	193	115	5	-	5,619	7,727	543	338	61	-	31	-
W.N. CENTRAL	1,012	624	58	7	25,352	30,097	2,006	632	275	23	55	291
Minn.	200	125	36	-	2,665	3,592	360	68	11	2	12	81
Iowa	92	142	-	4	1,714	2,032	47	39	10	4	11	19
Mo.	575	246	12	3	15,660	18,091	554	429	243	12	14	171
N. Dak.	4	9	2	-	49	121	40	4	5	1	1	1
S. Dak.	3	11	4	-	318	262	737	7	1	-	3	1
Nebr.	55	25	2	-	1,524	1,627	189	36	1	-	9	-
Kans.	83	66	2	-	3,422	4,372	79	49	4	4	5	18
S. ATLANTIC	8,970	2,274	159	30	153,174	166,507	1,602	3,027	331	197	172	628
Del.	67	67	3	-	2,528	2,793	8	43	5	2	2	62
Md.	803	287	22	1	17,331	20,818	249	338	45	13	35	260
D.C.	573	70	2	-	7,954	11,549	68	139	1	1	7	3
Va.	599	391	40	3	15,981	16,198	172	195	27	127	15	128
W. Va.	53	44	30	-	1,113	1,155	21	59	3	15	3	40
N.C.	473	310	29	-	31,125	25,550	152	481	104	-	22	77
S.C.	305	40	-	-	12,703	13,052	37	619	16	3	35	10
Ga.	1,309	298	9	2	33,434	35,880	199	459	67	-	17	27
Fla.	4,788	767	24	24	31,005	39,512	696	694	63	36	36	21
E.S. CENTRAL	919	755	38	1	51,076	51,370	221	1,163	362	3	52	101
Ky.	148	181	13	-	5,213	5,663	53	152	7	2	18	41
Tenn.	296	225	17	-	17,239	15,932	123	858	328	-	17	44
Ala.	301	276	8	1	16,210	17,324	35	141	22	1	16	16
Miss.	174	73	-	-	12,414	12,451	10	12	5	-	1	-
W.S. CENTRAL	3,695	1,229	104	4	58,462	63,483	2,557	1,883	111	193	43	73
Ark.	162	59	32	-	6,746	7,486	239	114	3	6	7	27
La.	619	130	17	-	13,574	11,671	118	286	6	8	8	3
Okla.	161	4	9	3	6,110	5,610	248	184	44	16	18	31
Tex.	2,753	1,036	46	1	32,032	38,716	1,952	1,299	58	163	10	12
MOUNTAIN	1,060	254	19	2	10,399	12,174	3,123	866	182	131	75	17
Mont.	25	18	1	-	85	189	76	66	5	5	5	-
Idaho	20	-	-	-	135	129	84	66	3	1	4	2
Wyo.	15	-	-	-	88	147	102	11	3	-	-	8
Colo.	374	101	8	1	2,894	3,573	565	129	93	25	14	-
N. Mex.	95	20	-	-	899	1,078	751	207	17	29	3	-
Ariz.	216	65	10	1	3,874	4,554	989	153	19	56	31	-
Utah	105	17	-	-	278	335	255	64	14	14	7	1
Nev.	210	33	-	-	2,146	2,169	301	170	28	1	11	6
PACIFIC	7,852	1,181	104	6	46,478	56,662	5,335	3,019	605	355	84	293
Wash.	454	-	9	1	4,023	4,914	463	384	127	19	8	3
Oreg.	234	-	-	-	1,753	2,233	353	282	113	9	3	-
Calif.	6,979	1,091	93	5	39,258	47,927	4,386	2,296	348	326	71	290
Alaska	19	45	2	-	794	1,042	89	35	13	1	-	-
Hawaii	166	45	-	-	650	546	44	42	4	-	2	-
Guam	2	-	-	-	-	269	-	-	-	-	-	-
P.R.	1,483	216	2	3	484	653	134	443	144	44	-	-
V.I.	13	-	-	-	332	399	1	10	-	-	-	-
Amer. Samoa	-	-	-	-	-	73	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	175	-	-	-	-	-	-

N: Not notifiable U: Unavailable C.N.M.I.: Commonwealth of the Northern Mariana Islands

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending November 9, 1991, and November 10, 1990 (45th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total									
	Cum. 1991	1991	Cum. 1991	1991	Cum. 1991	Cum. 1990	Cum. 1991	1991	Cum. 1991	1991	Cum. 1991	Cum. 1990	1991	Cum. 1991	Cum. 1990
UNITED STATES	1,026	73	8,850	1	202	24,752	1,727	49	3,448	29	2,260	3,745	5	1,291	1,039
NEW ENGLAND	66	2	64	-	17	293	136	1	27	-	257	377	-	4	8
Maine	1	-	7	-	-	30	11	-	-	-	52	18	-	-	1
N.H.	2	-	-	-	-	9	13	1	5	-	18	56	-	1	1
Vt.	4	-	5	-	-	1	15	-	4	-	4	7	-	-	-
Mass.	31	2	28	-	11	30	77	-	2	-	160	264	-	2	2
R.I.	7	U	3	U	1	30	1	U	4	U	-	7	U	-	1
Conn.	21	-	21	-	5	193	19	-	12	-	23	25	-	1	3
MID. ATLANTIC	187	25	4,620	-	7	1,554	185	3	265	4	190	501	1	562	11
Upstate N.Y.	44	U	334	U	4	318	95	U	94	U	119	311	U	539	10
N.Y. City	78	25	1,775	-	-	453	14	-	-	-	7	-	-	-	-
N.J.	51	-	970	-	2	394	37	-	62	-	2	36	-	-	-
Pa.	14	-	1,541	-	1	389	39	3	109	4	62	154	1	23	1
E.N. CENTRAL	78	-	75	-	20	3,540	290	2	342	1	361	956	-	317	162
Ohio	19	-	4	-	7	539	89	2	86	1	101	210	-	283	131
Ind.	3	-	1	-	5	418	35	-	8	-	69	131	-	2	-
Ill.	28	-	25	-	1	1,358	80	-	123	-	58	343	-	6	19
Mich.	25	-	43	-	-	473	63	-	100	-	37	79	-	25	9
Wis.	3	-	2	-	7	752	23	-	25	-	96	193	-	1	3
W.N. CENTRAL	35	-	39	-	16	868	100	2	110	7	185	196	1	19	40
Minn.	11	-	12	-	15	381	20	-	20	2	71	40	-	6	34
Iowa	6	-	17	-	-	26	14	1	21	3	23	18	-	6	4
Mo.	8	-	-	-	1	102	32	1	34	2	64	106	-	5	-
N. Dak.	1	-	-	-	-	-	1	-	2	-	3	3	-	1	1
S. Dak.	2	-	-	-	-	23	3	-	2	-	4	1	-	-	-
Nebr.	1	-	1	-	-	106	8	-	6	-	9	7	-	-	1
Kans.	6	-	9	-	-	230	22	-	25	-	11	21	1	1	-
S. ATLANTIC	211	25	519	-	23	1,302	306	19	1,226	5	230	300	1	10	20
Del.	3	-	21	-	-	11	2	-	6	-	-	8	-	-	-
Md.	57	-	173	-	3	212	31	4	233	-	55	62	-	1	2
D.C.	13	-	-	-	-	23	13	-	24	-	1	14	-	1	1
Va.	47	-	25	-	5	86	32	-	59	-	22	24	-	-	1
W. Va.	3	-	-	-	-	6	13	-	25	-	9	29	-	-	-
N.C.	13	-	40	-	4	30	52	2	241	-	38	72	-	2	-
S.C.	10	-	13	-	-	4	29	-	358	1	13	5	-	-	-
Ga.	20	-	10	-	5	358	61	-	71	4	46	38	-	-	1
Fla.	45	25	237	-	6	572	73	13	209	-	46	48	1	6	15
E.S. CENTRAL	20	-	29	-	3	199	109	-	226	-	92	149	-	100	4
Ky.	2	-	23	-	1	43	39	-	-	-	-	-	-	-	1
Tenn.	11	-	5	-	1	104	36	-	193	-	38	76	-	100	3
Ala.	7	-	1	-	1	25	32	-	13	-	52	65	-	-	-
Miss.	-	-	-	-	-	27	2	-	20	-	2	8	-	-	-
W.S. CENTRAL	65	-	186	-	14	4,295	119	4	294	-	140	185	-	7	66
Ark.	9	-	-	-	5	48	20	-	43	-	11	21	-	1	3
La.	17	-	-	-	-	10	34	-	29	-	16	32	-	-	-
Okla.	7	-	-	-	-	174	13	-	16	-	39	52	-	-	1
Tex.	32	-	186	-	9	4,063	52	4	206	-	74	80	-	6	62
MOUNTAIN	43	-	1,254	-	19	963	66	8	286	9	313	304	-	29	110
Mont.	1	-	-	-	-	1	10	-	-	-	4	35	-	3	15
Idaho	3	-	444	-	2	26	7	-	8	-	27	56	-	-	49
Wyo.	-	-	1	-	2	15	1	-	4	-	3	-	-	-	-
Colo.	12	-	1	-	5	138	14	1	132	4	128	107	-	2	4
N. Mex.	6	-	117	-	5	93	8	N	N	5	50	18	-	4	-
Ariz.	15	-	453	-	-	312	20	2	111	-	62	53	-	2	32
Utah	5	-	220	-	4	147	-	-	13	-	37	31	-	11	2
Nev.	1	-	18	-	1	231	6	5	18	-	2	4	-	7	8
PACIFIC	321	21	2,064	1	83	11,738	416	10	672	3	492	777	2	243	618
Wash.	23	-	46	-	15	254	58	-	167	-	128	198	-	8	-
Oreg.	11	-	52	-	41	212	51	N	N	-	66	98	-	3	74
Calif.	283	21	1,956	1†	15	11,155	296	10	468	3	231	382	2	226	528
Alaska	-	-	2	-	3	80	9	-	12	-	13	7	-	1	-
Hawaii	4	-	8	-	9	37	2	-	25	-	54	92	-	5	16
Guam	-	U	-	U	-	1	-	U	-	U	-	1	U	-	-
P.R.	1	-	94	-	-	1,665	19	-	10	-	50	12	-	-	-
V.I.	2	-	-	-	2	24	-	-	9	-	-	-	-	-	-
Amer. Samoa	-	U	-	U	-	566	-	U	-	U	-	-	U	-	-
C.N.M.I.	-	U	-	U	-	59	-	U	-	U	-	4	U	-	-

*For measles only, imported cases includes both out-of-state and international importations.
N: Not notifiable U: Unavailable †International §Out-of-state

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending November 9, 1991, and November 10, 1990 (45th Week)

Reporting Area	Syphilis (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1991	Cum. 1990	Cum. 1991	Cum. 1991	Cum. 1990	Cum. 1991	Cum. 1991	Cum. 1991	Cum. 1991
UNITED STATES	35,812	42,558	247	19,700	20,072	173	394	601	5,625
NEW ENGLAND	898	1,468	13	566	487	5	32	9	114
Maine	3	7	4	33	18	-	1	-	-
N.H.	12	48	2	5	3	-	1	-	2
Vt.	2	2	-	9	8	-	-	-	-
Mass.	430	598	7	308	249	5	27	8	14
R.I.	45	20	-	69	62	-	-	-	-
Conn.	406	793	-	142	147	-	3	1	98
MID. ATLANTIC	6,067	8,135	39	4,505	4,783	2	94	23	1,916
Upstate N.Y.	126	800	18	276	335	1	18	12	746
N.Y. City	3,401	3,842	2	2,838	2,986	-	52	1	-
N.J.	1,113	1,326	-	782	821	1	17	6	876
Pa.	1,427	2,167	19	609	641	-	7	4	294
E.N. CENTRAL	4,280	3,144	47	1,968	1,949	8	30	41	165
Ohio	569	468	21	313	346	2	3	24	18
Ind.	153	92	-	201	191	-	-	10	28
Ill.	2,018	1,300	15	1,016	977	4	10	4	35
Mich.	1,030	930	11	353	366	2	12	3	33
Wis.	510	354	-	85	69	-	5	-	51
W.N. CENTRAL	744	461	38	450	528	49	6	38	759
Minn.	60	81	8	87	104	1	2	-	269
Iowa	63	69	7	55	55	-	-	1	147
Mo.	474	243	13	206	267	39	1	26	20
N. Dak.	-	1	-	6	17	-	-	-	89
S. Dak.	1	3	1	30	13	5	-	1	165
Nebr.	15	14	1	18	16	1	3	5	17
Kans.	131	50	8	48	56	3	-	5	52
S. ATLANTIC	10,541	13,574	23	3,718	3,685	4	68	274	1,329
Del.	150	164	1	30	33	-	-	-	158
Md.	856	1,046	1	347	304	-	10	27	505
D.C.	634	981	1	162	140	-	2	-	17
Va.	764	827	5	290	327	-	10	18	224
W. Va.	26	18	-	61	66	-	1	4	47
N.C.	1,743	1,527	10	479	508	1	4	152	23
S.C.	1,358	929	2	368	413	1	4	35	97
Ga.	2,541	3,418	-	719	609	1	5	35	230
Fla.	2,469	4,664	3	1,262	1,285	1	32	3	28
E.S. CENTRAL	3,816	3,925	11	1,415	1,465	19	2	98	139
Ky.	94	100	4	304	326	4	2	28	40
Tenn.	1,269	1,626	5	509	417	14	-	54	29
Ala.	1,356	1,200	2	320	427	1	-	16	70
Miss.	1,097	999	-	282	295	-	-	-	-
W.S. CENTRAL	6,548	7,412	14	2,371	2,399	52	25	108	548
Ark.	581	502	3	200	291	39	-	27	46
La.	2,421	2,317	-	197	251	-	5	-	5
Okla.	179	224	4	153	180	12	3	79	158
Tex.	3,367	4,369	7	1,821	1,677	1	17	2	339
MOUNTAIN	545	768	30	542	483	28	12	8	232
Mont.	6	-	1	6	22	9	-	6	38
Idaho	4	6	-	9	11	-	-	-	6
Wyo.	9	3	-	4	5	1	-	-	83
Colo.	78	46	5	56	45	9	2	2	25
N. Mex.	28	40	7	62	92	2	2	-	5
Ariz.	317	547	5	278	215	2	7	-	45
Utah	6	17	12	40	37	5	-	-	19
Nev.	97	109	-	87	56	-	1	-	11
PACIFIC	2,373	3,671	32	4,165	4,293	6	125	2	423
Wash.	166	341	4	265	245	2	6	1	1
Oreg.	80	122	-	108	114	2	5	1	5
Calif.	2,115	3,173	28	3,570	3,729	2	104	-	413
Alaska	4	17	-	50	56	-	-	-	3
Hawaii	8	18	-	172	150	-	10	-	1
Guam	-	2	-	-	40	-	-	-	-
P.R.	378	296	-	203	102	-	9	-	59
V.I.	89	12	-	3	4	-	-	-	-
Amer. Samoa	-	-	-	-	15	-	-	-	-
C.N.M.I.	-	5	-	-	49	-	-	-	-

U: Unavailable

TABLE III. Deaths in 121 U.S. cities,* week ending November 9, 1991 (45th Week)

Reporting Area	All Causes, By Age (Years)						P&I†
	All Ages	≥65	45-64	25-44	1-24	<1	Total
NEW ENGLAND	555	383	90	48	16	18	29
Boston, Mass.	172	97	30	24	8	13	8
Bridgeport, Conn.	32	25	5	-	1	1	1
Cambridge, Mass.	16	10	3	3	-	-	1
Fall River, Mass.	28	22	3	3	-	-	-
Hartford, Conn.	52	32	11	6	1	2	2
Lowell, Mass.	26	25	-	1	-	-	-
Lynn, Mass.	11	9	1	1	-	-	-
New Bedford, Mass.	25	18	5	-	1	1	2
New Haven, Conn.	29	20	6	1	1	1	2
Providence, R.I.	37	28	5	3	1	-	-
Somerville, Mass.	8	7	1	-	-	-	2
Springfield, Mass.	32	23	5	3	1	-	3
Waterbury, Conn.	31	22	7	1	1	-	1
Worcester, Mass.	56	45	8	2	1	-	7
MID. ATLANTIC	2,552	1,621	499	284	74	72	114
Albany, N.Y.	45	39	3	2	-	1	4
Allentown, Pa.	26	21	3	2	-	-	-
Buffalo, N.Y.	111	74	24	8	2	2	3
Camden, N.J.	47	27	11	4	3	2	7
Elizabeth, N.J.	15	10	4	1	-	-	1
Erie, Pa.§	46	35	9	2	-	-	4
Jersey City, N.J.	55	33	10	6	3	2	2
New York City, N.Y.	1,401	853	276	184	46	42	46
Newark, N.J.	52	17	17	14	3	1	3
Paterson, N.J.	38	21	4	7	2	4	1
Philadelphia, Pa.	279	165	63	33	8	10	15
Pittsburgh, Pa.§	51	38	9	1	1	2	4
Reading, Pa.	49	36	8	4	-	1	10
Rochester, N.Y.	126	95	14	10	5	2	4
Schenectady, N.Y.	23	18	5	-	-	-	-
Scranton, Pa.§	42	37	4	1	-	-	-
Syracuse, N.Y.	68	51	13	1	1	2	2
Trenton, N.J.	33	24	5	3	-	1	5
Utica, N.Y.	23	14	9	-	-	-	2
Yonkers, N.Y.	22	13	8	1	-	-	1
E.N. CENTRAL	2,291	1,417	430	244	124	76	111
Akron, Ohio	78	50	14	9	3	2	4
Canton, Ohio	37	21	13	3	-	-	11
Chicago, Ill.	536	210	124	103	79	20	17
Cincinnati, Ohio	102	65	20	9	4	4	8
Cleveland, Ohio	158	108	25	15	6	4	1
Columbus, Ohio	213	133	40	25	7	8	6
Dayton, Ohio	111	81	20	3	2	5	10
Detroit, Mich.	221	134	41	26	7	13	14
Evansville, Ind.	35	27	5	1	1	1	-
Fort Wayne, Ind.	54	41	7	3	2	1	2
Gary, Ind.	18	13	4	-	-	1	-
Grand Rapids, Mich.	58	44	10	-	3	1	2
Indianapolis, Ind.	168	121	23	18	3	3	9
Madison, Wis.	36	24	8	1	2	1	3
Milwaukee, Wis.	127	96	19	9	2	1	8
Peoria, Ill.	53	38	9	3	-	3	1
Rockford, Ill.	52	35	10	4	1	2	2
South Bend, Ind.	68	54	10	4	-	-	6
Toledo, Ohio	93	67	15	5	-	6	5
Youngstown, Ohio	73	55	13	3	2	-	2
W.N. CENTRAL	616	426	104	40	31	15	24
Des Moines, Iowa	102	72	22	2	5	1	5
Duluth, Minn.	30	27	2	1	-	-	2
Kansas City, Kans.	36	17	12	4	2	1	1
Kansas City, Mo.	100	72	11	12	1	4	10
Lincoln, Nebr.	U	U	U	U	U	U	U
Minneapolis, Minn.	56	45	8	-	2	1	3
Omaha, Nebr.	U	U	U	U	U	U	U
St. Louis, Mo.	164	98	29	17	15	5	-
St. Paul, Minn.	64	46	11	4	1	2	2
Wichita, Kans.	64	49	9	-	5	1	1
S. ATLANTIC	1,238	707	278	156	51	45	58
Atlanta, Ga.	162	92	33	24	5	8	6
Baltimore, Md.	124	77	24	12	5	6	9
Charlotte, N.C.	U	U	U	U	U	U	U
Jacksonville, Fla.	126	72	27	14	6	6	12
Miami, Fla.	124	66	31	19	6	2	-
Norfolk, Va.	65	36	14	7	3	5	3
Richmond, Va.	89	63	17	7	2	-	4
Savannah, Ga.	79	40	20	12	5	2	6
St. Petersburg, Fla.	68	47	14	4	1	2	-
Tampa, Fla.	135	80	36	12	6	1	8
Washington, D.C.	247	117	60	45	12	13	10
Wilmington, Del.	19	17	2	-	-	-	-
E.S. CENTRAL	802	507	153	72	26	44	45
Birmingham, Ala.	125	71	26	16	6	6	1
Chattanooga, Tenn.	66	47	12	6	-	1	4
Knoxville, Tenn.	90	62	11	10	4	3	9
Louisville, Ky.	106	66	24	7	3	6	8
Memphis, Tenn.	213	129	34	17	10	23	11
Mobile, Ala.	46	33	8	2	-	3	3
Montgomery, Ala.	40	27	10	2	1	-	1
Nashville, Tenn.	116	72	28	12	2	2	8
W.S. CENTRAL	1,364	862	281	141	49	29	68
Austin, Tex.	52	43	6	-	3	-	3
Baton Rouge, La.	32	22	9	1	-	-	-
Corpus Christi, Tex.	45	29	9	4	2	1	2
Dallas, Tex.	198	122	40	20	9	7	5
El Paso, Tex.	59	38	13	4	2	2	2
Ft. Worth, Tex.	112	75	23	10	3	1	4
Houston, Tex.	384	221	82	58	15	6	26
Little Rock, Ark.	67	43	14	7	3	-	2
New Orleans, La.	75	39	16	10	3	7	-
San Antonio, Tex.	182	119	36	19	5	3	15
Shreveport, La.	63	43	10	6	3	1	4
Tulsa, Okla.	95	68	23	2	1	1	5
MOUNTAIN	769	525	150	59	21	14	41
Albuquerque, N.M.	80	52	19	5	1	3	4
Colo. Springs, Colo.	51	34	12	5	-	-	4
Denver, Colo.	97	72	17	5	2	1	9
Las Vegas, Nev.	144	92	30	14	7	1	8
Ogden, Utah	28	19	7	1	-	1	7
Phoenix, Ariz.	188	115	42	20	4	7	3
Pueblo, Colo.	30	26	4	-	-	-	2
Salt Lake City, Utah	42	25	7	5	4	1	2
Tucson, Ariz.	109	90	12	4	3	-	2
PACIFIC	1,284	845	230	127	46	35	82
Berkeley, Calif.	18	12	4	1	-	1	-
Fresno, Calif.	98	41	25	18	11	3	17
Glendale, Calif.	U	U	U	U	U	U	U
Honolulu, Hawaii	90	62	15	12	-	1	4
Long Beach, Calif.	U	U	U	U	U	U	U
Los Angeles, Calif.	U	U	U	U	U	U	U
Oakland, Calif.	U	U	U	U	U	U	U
Pasadena, Calif.	36	24	10	1	1	-	6
Portland, Oreg.	86	62	20	1	2	1	3
Sacramento, Calif.	134	89	29	13	3	-	11
San Diego, Calif.	146	91	23	19	4	9	12
San Francisco, Calif.	161	83	28	30	13	6	2
San Jose, Calif.	180	136	29	7	3	5	10
Seattle, Wash.	181	127	24	18	7	5	6
Spokane, Wash.	52	36	12	1	1	2	6
Tacoma, Wash.	102	82	11	6	1	2	5
TOTAL	11,471¶	7,293	2,215	1,171	438	348	572

*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.
†Pneumonia and influenza.
§Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.
¶Total includes unknown ages.
U: Unavailable

Alcohol and Other Drug Use — Continued

it during the 30 days preceding the survey (3.3%) than were female students (5.2% and 1.0%, respectively). Students in grade 12 were significantly more likely to have used cocaine in their lifetime (9.3%) and to have used cocaine during the 30 days preceding the survey (2.3%) than were students in grade 9 (3.6% and 1.1%, respectively).

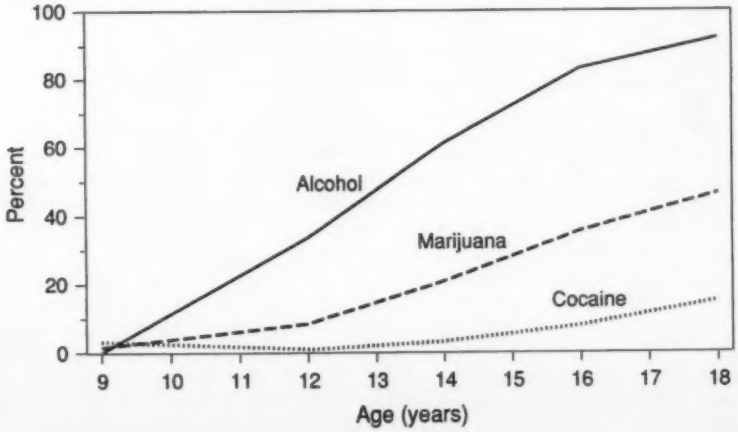
For students in grades 9–12, initial use of alcohol, marijuana, or cocaine increased substantially with age. For example, among students in grades 9–12, more than one third (33.6%) had first consumed alcohol before age 12 and 92.0% had consumed alcohol for the first time before age 18 (Figure 1).

Reported by: Div of Epidemiology and Prevention Research, National Institute on Drug Abuse, Alcohol, Drug Abuse, and Mental Health Administration; Div of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.

Editorial Note: Young adults may be less likely to develop serious alcohol and other drug problems if age at first use is delayed beyond childhood and adolescence (*4*). Therefore, the national health objectives for the year 2000 include efforts to delay by at least 1 year the age at which adolescents first use alcohol and marijuana (objective 4.5); reduce the proportion of youth aged 12–17 years who consumed alcohol or who used marijuana or cocaine to no more than 12.6%, 3.2%, and 0.6%, respectively (objective 4.6); and reduce the number of high school seniors involved in recent episodes of heavy drinking to no more than 28.0% (objective 4.7) (*5*). Current levels of alcohol, marijuana, and cocaine use and recent occasions of heavy drinking among adolescents must be reduced substantially to reach these objectives.

To reduce alcohol consumption and other drug use by students, primary and secondary schools should employ educational programs—optimally as part of quality school health education (objective 4.13) (*5*)—that provide students with factualinformation about the effects of alcohol and other drugs and teach skills to avoid their

FIGURE 1. Percentage of high school students who first used alcohol, marijuana, or cocaine before reaching selected ages — United States, Youth Risk Behavior Survey, 1990*



*Unweighted sample size = 11,631 students.

Alcohol and Other Drug Use — Continued

use. School policies that advocate substance-free campuses and provide referral to drug treatment and support groups can reinforce these programs (*5*).

The national health objectives to reduce the use of alcohol by youth also can be addressed through community enactment and enforcement of policies to reduce minors' access to alcoholic beverages (objective 4.16) (*5*). These policies may include restricting the sale of alcoholic beverages at recreational and entertainment events commonly attended by adolescents, increasing the price of alcoholic beverages, and imposing penalties and revoking licenses for the sale of alcoholic beverages to minors. Other key strategies include restricting the promotion of alcoholic beverages among youth (objective 4.17) (*5*) and reducing the legal blood alcohol concentration for minors to zero (objective 4.18) (*5*). A combination of these strategies and the coordinated efforts of local and state health and education officials, families, legislators, law-enforcement officials, media, and community agencies are essential to attaining the goal of reducing alcohol and other drug use among youth.

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Current Trends

Screening for Hepatitis B Virus Infection Among Refugees Arriving in the United States, 1979–1991

Because hepatitis B virus (HBV) infection is highly endemic in several areas of the world, both the prevalence of and risk for HBV infection are substantially greater among persons emigrating from these areas to the United States than for the overall U.S. population. In 1985, federal funds were made available to supplement ongoing state and local health department refugee-screening programs and to promote serologic screening for HBV infection in pregnant Indochinese women and household contacts of these female HBV carriers among persons identified by the Department of State as refugees entering the United States. This report summarizes data collected during 1979–1991 by selected screening programs that implemented universal hepatitis B (HB) screening at different times.

Health-screening programs established by state and local health agencies for newly arrived refugees generally include tuberculosis screening, stool screening for ova and parasites, and serologic screening for HBV infection; screening is done as soon as possible after arrival. Services may be provided in special refugee-health

Refugees – Continued

clinics, local health department clinics, or the offices of private-practice physicians. For this report, programs were selected that 1) screened all incoming refugees and 2) had data on the results of testing for hepatitis B surface antigen (HBsAg) that could be used to calculate nationality-specific estimates of the prevalence of current HBV infection. Because these data did not include more detailed demographic information, neither age- nor sex-specific prevalence estimates could be calculated.

Crude prevalence rates of HBsAg were highest among refugees from countries in Southeast Asia (range: 11.7%–15.5%), intermediate among refugees from Africa, and lower among refugees from other countries in Asia, including Afghanistan (4.1%) and Iran (2.4%) (Table 1). Crude prevalence rates were substantially higher among refugees from Bulgaria (5.3%) and Romania (4.1%) than among refugees from other eastern European countries, who had the lowest rates for all groups tested (Table 1).

Reported by: C Crysel, Alabama Refugee Health Screening Program, Bur of Disease Control, Alabama Dept of Public Health. MP Wong, San Francisco General Hospital Refugee Clinic, San Francisco. B Brown, Georgia Refugee Health Program, Div of Public Health, Georgia Dept of Human Resources. J Cochran, Refugee Health Program, Communicable Disease Control, Massachusetts Dept of Public Health. B Morales, Detroit Refugee Health Screening Program, Detroit Health Dept, Michigan. D Peterson, Refugee Health Unit, Acute Disease Programs, Minnesota Dept of Health. S Brooks, New York Refugee Health Program, New York State Dept of Health. D Candow, Refugee Health Program, Ohio Dept of Health. M Hurie, Refugee and Immigrant Health Program, Bur of Public Health, Div of Health, Wisconsin Dept of Health and Social Svcs. Hepatitis Br, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases; Medical Screening and Health Assessment Br, Div of Quarantine, National Center for Prevention Svcs, CDC.

TABLE 1. Results of hepatitis B surface antigen (HBsAg) screening from refugee-health programs testing all incoming refugees – United States, 1979–1991

Country of origin	No. tested	Positive		
		No.	(%)	(95% CI*)
Southeast Asia				
Laos (Hmong)	8,879	1,374	(15.5)	(14.7–16.2)
Cambodia	4,748	724	(15.2)	(14.2–16.3)
Thailand†	233	33	(14.2)	(10.1–19.5)
Vietnam	10,561	1,460	(13.8)	(13.2–14.5)
Laos (other)	4,238	494	(11.7)	(10.7–12.7)
Africa/Mideast/Asia				
Iraq	23	3	(13.0)	(3.4–34.7)§
Ethiopia	944	89	(9.4)	(7.7–11.5)
Angola	14	1	(7.1)	(0.4–35.8)§
Afghanistan	418	17	(4.1)	(2.5– 6.6)
Iran	293	7	(2.4)	(1.1– 5.1)
Eastern Europe				
Bulgaria	38	2	(5.3)	(0.9–19.1)
Romania	754	31	(4.1)	(2.9– 5.9)
Poland	903	16	(1.8)	(1.1– 2.9)
Union of Soviet Socialist Republics	4,504	66	(1.5)	(1.1– 1.9)
Czechoslovakia	168	2	(1.2)	(0.2– 4.7)
Hungary	94	1	(1.1)	(0.1– 6.6)

*Confidence interval, calculated by the quadratic method.
†Includes only children born in Thailand whose mothers were Cambodian refugees.
§The measured prevalence of HBsAg has not been reported to exceed 20% in any known population (*1*).

Refugees — Continued

Editorial Note: The prevalence of HBsAg among refugees entering the United States reflects the patterns of HBV infection in the countries and regions of origin for these persons. In Southeast Asia, the Middle East, and Africa, the crude prevalence of chronic HBV infection ranges from 5% to 15%, and HBV is a major cause of morbidity and mortality from acute and chronic hepatitis, cirrhosis, and primary hepatocellular carcinoma (*2–4*). Although less is known about the prevalence of HBV infection in eastern Europe, recent data from other sources are consistent with the high prevalence of HBV infection in Romania reported here (*1*; CDC, unpublished data) and suggest that levels of HBV infection in parts of eastern Europe may be higher than previously believed.

Although the overall risk for HBV infection is lower in the United States than in many countries, the Immunization Practices Advisory Committee recommends that all pregnant women be screened for HBsAg to identify infants needing specific immunoprophylaxis to prevent HBV infection (*5*). In addition, universal infant vaccination is recommended in populations with a high prevalence of HBV infection, such as Alaskan Natives, Pacific Islanders, and emigrants from areas with moderate and high levels of HBV infection (*5*). In these populations, infants not infected at the time of birth may become infected during early childhood through exposure to mothers or siblings who are HBV carriers (*6,7*). In such groups, vaccination at birth and integration of HB vaccination into the routine infant vaccination schedule are important (*8*).

The findings in this report identify specific groups at higher risk for HBV infection, including persons emigrating from Afghanistan, Angola, Bulgaria, Cambodia, Ethiopia, Iran, Iraq, Laos, Romania, Thailand, and Vietnam. Although site-specific demographic data were not available for this report, 25.2% of all refugees entering the United States during 1983–1989 were women of reproductive age (15–44 years of age) (CDC, unpublished data). This suggests that U.S.-born infants of women who have emigrated from these countries are at substantial risk for HBV infection through perinatal or early childhood transmission. Therefore, managers of vaccine delivery programs targeted at these groups should recognize the need to screen all pregnant women for HBV infection, appropriately treat infants of HBsAg-positive mothers, and fully vaccinate infants who are at increased risk for HBV infection.

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Notice to Readers

Review of Draft for Revision of HIV Infection Classification System and Expansion of AIDS Surveillance Case Definition

CDC is revising the classification system for human immunodeficiency virus infection and is expanding the surveillance case definition for acquired immunodeficiency syndrome (AIDS) among adolescents and adults. The draft document is available for review from the National AIDS Clearinghouse, P.O. Box 6003, Rockville, MD 20849-6003; telephone (800) 458-5231. Written comments on this draft document should be received at the same address by December 16, 1991.

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